

**To study the present process and functioning of the OPD and  
formulate suggestions and methods to improve the OPD services  
at Cantonment General Hospital, Delhi Cantonment**

(24 Feb-18 May 2016)

**Internship and Dissertation Report  
Submitted in Partial Fulfillment of the Requirements for the  
Award of**

**Post-Graduate Diploma in Health and Hospital Management  
Batch 'G' (2014-16)**

**By**

**Lt Col Amitabh Verma**  
(On study leave)  
Enrolment No. PGDHM/2014/006

Under the guidance of

**Internal Mentor**

Prof. (Dr) Ashok K Agarwal  
MD, DNB, DHSA(UK)  
Professor & Dean (Academics)  
IIHMR, Delhi

**External Mentor**

Dr MK Hira  
Senior Medical Officer  
Cantonment Board Hospital  
Delhi Cantonment



**International Institute of Health Management Research,  
New Delhi  
2016**

## **TO WHOMSOEVER IT MAY CONCERN**

1. This is to certify that Lt Col Amitabh Verma student of Post graduate Diploma in Hospital and Health Management ( PGDHM ) from International institute of Health Management and Research, New Delhi has undergone internship training at Cantonment Board General Hospital , Delhi Cantonment from 24 Feb to 18 May 2016.

2. The candidate has successfully carried out the study on topic "**To study the present process and functioning of the OPD and formulate suggestions and methods to improve the OPD services at Cantonment General Hospital, Delhi Cantonment**", which was designated to him during the internship training and his approach to the study has been sincere, deductive and analytical.

3. The internship is in fulfilment of the course requirements.

4. I wish him success in all his future endeavours.

**DR Ashok Kumar Agarwal**  
Professor & Dean Academics  
IIHMR Delhi

## **CERTIFICATE OF APPROVAL**

The following dissertation titled "**To study the present process and functioning of the OPD and formulate suggestions and methods to improve the OPD services at Cantonment General Hospital, Delhi Cantonment**" is hereby approved as a certified study in management carried out and presented in a manner satisfactorily to warrant its acceptance as a pre requisite for the award of **Post Graduate Diploma in Health and Hospital Management** for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the dissertation only for the purpose it is submitted.

**Dissertation Examination Committee for evaluation of dissertation.**

**Name**

**Signature**

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## **CERTIFICATE FROM DISSERTATION ADVISORY COMMITTEE**

This is to certify that Lt Col Amitabh Verma, a graduate student of Post - Graduate Diploma in Health and Hospital Management has worked under my guidance and supervision. He is submitting this Dissertation **"To study the present process and functioning of the OPD and formulate suggestions and methods to improve the OPD services at Cantonment General Hospital, Delhi Cantonment"** at IHHMR Delhi, in partial fulfilment of the requirement for the award of the **Post Graduate Diploma in Health and Hospital Management**. This dissertation has the requisite standard and to the best of our knowledge no part of it has been reproduced from any other dissertation, monograph, report or book.

Faculty Mentor  
**Prof. (Dr) Ashok K Agarwal**  
MD, DNB, DHSA(UK)  
Professor & Dean (Academics)  
IIHMR, Delhi

External Mentor  
**Dr M K Hira**  
Senior Medical Officer  
Cantonment General Hospital



Cantonment General Hospital  
Delhi Cantonment, 110010  
Ph No: 011-25695547  
Fax: 011-25695345  
Email: cghosp\_2008@hotmail.com

**To Whom It May Concern**

**18th May 2016**

This is to confirm that **Lt Col Amitabh Verma** a student of International Institute of Health Management and Research, New Delhi, was permitted to undergo training in the **Department of Out Patient Department Services at Cantonment General Hospital, Sadar Bazar, Delhi Cantonment.**

The duration of training was from **24 Feb to 18 May 2016.**

Lt Col Amitabh has successfully completed his internship period which is a part of his course curriculum ie PGDHHM program. It is a bonafide work carried out by him under my supervision and guidance.

I wish him all the best in his future endeavors.

**For Cantonment General Hospital.**

**Dr M K Hira** (External Mentor)  
Senior Medical Officer  
Cantonment General Hospital



Cantonment General Hospital  
Delhi Cantonment, 110010  
Ph No: 011-25695547  
Fax: 011-25695345  
Email: cghosp\_2008@hotmail.com

**TO WHOMSOEVER IT MAY CONCERN**

Date : 18 May 2016

This is to certify that Lt Col Amitabh Verma has satisfactorily completed his internship and Dissertation in the Department of Operations from 24 Feb to 18 May 2016.

During his tenure, he has successfully completed the project on the topic titled **"To study the present process and functioning of the OPD and formulate suggestions and methods to improve the OPD services at Cantonment General Hospital, Delhi Cantonment"**

Throughout the training he has been a regular and keen learner . His performance during the training period was excellent.

**Dr M K Hira** (External Mentor)  
Senior Medical Officer  
Cantonment General Hospital

### **FEEDBACK FORM**

Name of the Student : Lt Col Amitabh Verma

Dissertation Organisation : Cantonment General Hospital,  
Delhi Cantonment

Area of Dissertation : Out Patient Department Services

Attendance : Ok

Objectives achieved : Yes

Deliverables : Streamlining OPD, Managing Time, Better  
Scheduling, Improving Technology

Strengths : Dedicated to work, Sincere, Hardworking,  
Punctual

Suggestions for Improvement : Can be more Organised

Signature of the **Officer-in-Charge/ Organisation Mentor Dissertation**

Date:

Place:

### **CERTIFICATE BY SCHOLAR**

This is to certify that the dissertation titled "**To study the present process and functioning of the OPD and formulate suggestions and methods to improve the OPD services at Cantonment General Hospital, Delhi Cantonment**" and submitted by Lt Col Amitabh Verma, Enrolment No. PGDHM/2014/006 under the supervision of **Prof. (Dr) Ashok K Agarwal**, for the award of Postgraduate Diploma in Hospital and Health Management of the Institute carried out during the period from **24 February to 18 May 2016** embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.

**Lt Col Amitabh Verma**



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I am thankful to the **Out Patient Department** of Cantonment General Hospital, where I got the golden opportunity to undertake this project. The help and guidance that I have received here will be earnestly cherished throughout my life.

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I would also like to express my deep felt gratitude to **Dr. Gurdev Singh**, MBBS, DTCD, DGO, MBA(HR), MHA designated as the **Chief Medical Officer** of Cantonment General Hospital, for giving me all assistance to complete the project work, which is an important part of my curriculum.

Not only to fulfill a formality but also to express the feeling in my heart, I put on record my deepest gratitude to **all patients, Staff and employees** of Cantonment General Hospital, who helped me by right guidance, upgrading my knowledge skills, and troubleshooting while doing the assignments.

Lt Col Amitabh Verma  
(on study leave)

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### **ACRONYMS / ABBREVIATIONS**

CGH	-	Cantonment General Hospital
Dept	-	Department.
Fig.	-	Figure
HR	-	Human Resource
ICU	-	Intensive Care Unit
IT	-	Information Technology
JR	-	Junior Residents
M.S.	-	Medical Superintendent
OPD	-	Outpatient department
OT	-	Operation Theatre
P.R.O	-	Public Relation Officer
SR	-	Senior Residents
Supdt	-	Superintendent

# **SECTION 1: INTERNSHIP REPORT**

## **INTERNSHIP REPORT**

( Mar - May 2016 )

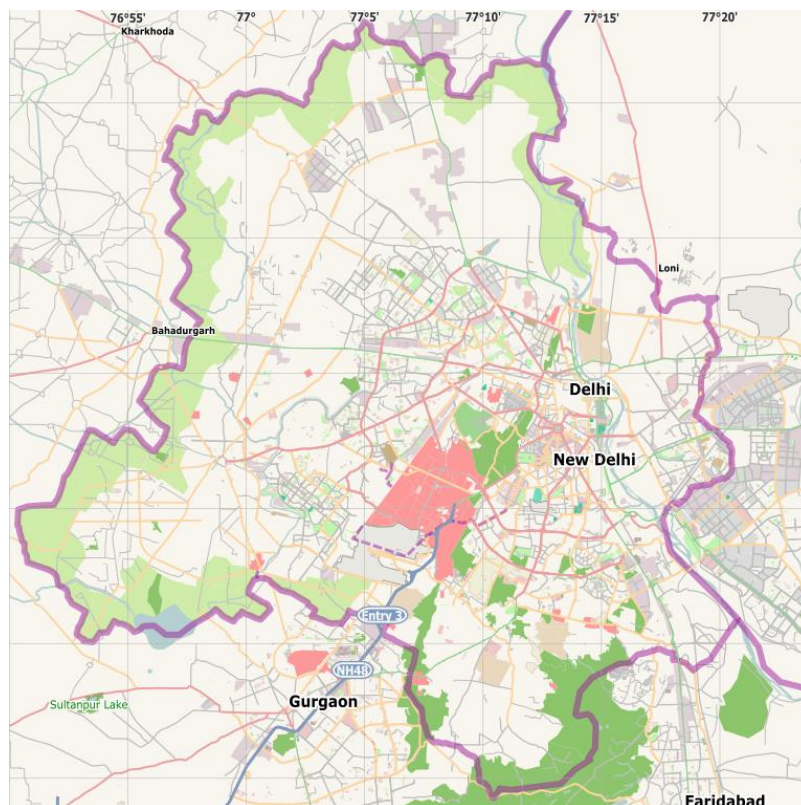
### **Introduction**

Cantonments in India were originally established by the British Indian Army. Currently, the Delhi Cantonment houses the Indian Army Headquarters, Delhi Area; the Army Golf Course; the Defence Services Officers Institute; military housing; Army and Air Force Public Schools; and various other defence-related installations. The cantonment also houses the Army Research and Referral Hospital, a tertiary care medical center of the armed forces of India.

There is a railway station within the cantonment, Delhi Cantonment Railway Station, from where trains depart for various parts of the country.



The Delhi Cantonment was established by the British in the year 1914. Till Feb 1938, the Cantonment Board Delhi used to be known as Cantonment authority. The area of the Cantonment is 10,791.88 acres. At the 2001 India census<sup>[3]</sup> Delhi Cantonment. had a population of 124,452. Males constituted 61% of the population and females 39%. Delhi Cantonment has an average literacy rate of 77%, higher than the national average of 74%: male literacy is 83% and, female literacy is 68%. In Delhi Cantonment., 12% of the population is under 6 years of age.



At the 2011 India census Delhi Cantonment. had a population of 116,352. Males constituted ~58% (67,703) of the population and females constituted ~42% (48,649). Delhi Cantonment. has an average literacy rate of 91.11%, higher than the national

average of 79.9%: male literacy is 94.54% and, female literacy is 86.26%. In Delhi Cantonment., 11.36% of the population is under 6 years of age. <sup>2</sup>

The Delhi Cantonment is as Class I Cantonment Board. Presently, the Cantonment is governed by the Cantonments Act, 2006 and various Policy letters and Instructions of the Ministry of Defence, Government of India issued from time to time. Though the Board functions as a local municipal body, yet it is under the administrative control of Directorate General Defence Estates, New Delhi and Principal Director, Defence Estates, Western Command, Chandigarh. <sup>3</sup>

The Cantonment Board consists of eight elected Members, three nominated Military Members, three Ex-officio Members (Station Commander, Garrison Engineer and senior executive Medical Officer), one representative of the District Magistrate. An officer of the Indian Defence Estates Services which is a central civil service is posted as the Cantonment Executive Officer (CEO) as well as the member secretary of the Board. The board is headed by the President Cantonment Board (PCB) who is the Station Commander and also presides over the meetings of the cantonment board. The Station Commander of the Army is the Ex-officio President of the Cantonment Board. At present **Brig. Jai Singh** is the President of the Cantonment Board Delhi.

The term of the elected Members is of 5 years. The Vice President is elected from amongst the elected.



### **Organisational Profile**

Cantonment Board Hospitals have been raised in all Cantonments of the country to look after the civilian population living in and around the cantonments . These hospitals come under the Local Cantonment Board headed by a Chief Executive Officer (CEO) who is an officer of Indian Defence Estates Service cadre of Civil Services and works under the administrative control of Director General, Defence Estates, Govt. of India, Ministry of Defence. **Sh. B Reddy Sankar Babu, IDES** is the Chief Executive Officer of Delhi Cantonment Board at present.

**One of the mandatory functions of the Cantonment Board is to provide the basic health cover to the civilian population of Delhi Cantonment Area.** The board has been performing this through Cantonment General Hospital located at Sadar Bazar, Delhi Cantonment.

Cantonment General Hospital (**CGH**) provides the basic health cover to the civilian population of Delhi Cantonment Area. <sup>4</sup> The Hospital made a modest beginning from one of the barracks of the old base hospital building at Sadar Bazar, Delhi Cantonment. The hospital was shifted to its present location in 1963 .The hospital is a **100-bedded unit** (under extension) at present, providing general medical and primary emergency care services including **Laboratory, X-ray and Delivery services.**



The hospital is managed by the permanent staff consisting of a CMO, 4 general duty doctors, a dental surgeon and other doctors on contractual basis. It has a full-time **dental clinic**, part-time **visiting specialist** of dermatology and ophthalmology. It has limited IPD services. It has in its premises a **Health Post of Delhi Govt** which provides Maternal and Child Health Services including Antenatal Care and Immunization Services. It also has the **DOTS Centre of Delhi Govt** providing treatment of tuberculosis. An **AYUSH clinic** run by Central Council for Research in Homoeopathy (CCRH) is also functional on daily basis. The hospital carries out **Birth & Death Registration**, an important function of Delhi Cantonment Board. It is implementing all the **National Health Programs** including Pulse Polio Program, School Health and Tuberculosis Control.<sup>5</sup>

#### **Mission, Vision and Values**

The hospital has not developed any mission, vision or value statement

#### **Structure of the Hospital -**

The General hospital is housed in a Three floor building with the following constitution :-

**Ground floor** - Has the Reception and Registration centre, Emergency, Casualty room, Ortho, Gynecology, Ophthalmology, ENT, Medical, Psychiatric, Skin, Ayurvedic and Homeopathic OPDs, Minor OT, Radiology (X ray & USG), ECG room, Immunization and Injection room, Family planning Counselling room, Labour

room , Physiotherapy room, a DOTS centre , main Pharmacy , Dressing room and Plaster room.

**The first floor** has the Administrative block , Dental department , Path Lab , Pharmacy store , Ayurvedic store , Family ward ( 18 beds ) and a conference room .

**The Second floor** has the Major OT , VIP rooms( 06 capacity ) , Private wards ( 18 capacity ) , Male ward ( 20 capacity and CSSD

**The Basement** has the AC plant Linen store , Furniture store , Pump house and Generator set

**Ambulances** - The hospital has two mobile dispensaries to cater for distribution of medicines , it has two BSA and one ALS.

#### **DISTRIBUTION OF BEDS**

Gen. Medicine	16
Surgical Ward	16
New Born	03
Obs/Gyne (Maternity)	18
Pediatrics	06
Casualty & Observation	04
Isolation	04
Post OP.	18
ICU	06
Private Ward	09
<b>TOTAL</b>	<b>100</b>

### **Staff**

The hospital have the following staff :- The hospital is headed by a CMO (Incharge) under whom are the following staff :-

- **Permanent** - Doctors - 04 , Nurses - 02 , ANM - 04 , Technicians - 02 ,  
Pharmacist - 02 , Administrative staff - 13
- **Contractual** - Doctors - 28 , Nurses - 35 , Technicians - 18 , Pharmacist - 04

### **Outsourced Services**

The hospital has outsourced the following services

- Security - 30 persons
- House Keeping and waste disposal - 60 persons
- Maintenance & operation of Lifts & pumps
- Maintenance of equipments
- Fire fighting
- Laundry
- Kitchen

### **Services not catered for in the Hospital**

The hospital has not catered for the following services :-

- Blood Bank
- Mortuary

### **Departments**

Cantonment General Hospital provides care through the following Departments:

- Orthopedics.
- Obstetrics & Gynecology
- ENT
- Skin
- Ophthalmology
- Medical
- Clinical Nutrition.
- Dentistry.
- Psychiatry
- Physiotherapy
- Health Check
- Radiology
- Path and Lab
- DOT centre
- AYUSH clinic

## **Pictorial Tour of the Hospital**

**FULLY AUTOMATIC BIO ANALYSER**



**DENTAL UNIT**



**MINOR OT**



**ULTRASOUND**



**PHYSIOTHERAPY**



**CSSD**



**HOMOPATHY CLINIC**



**LABOUR ROOM**



**LABOUR WARD**









**CARE FOR SENIOR CITIZENS**



**FEMALE WARD**



**FAMILY CARE DEPTT**



**ECG**



**ENT**



**SKIN OPD**



**PHARMACY**



**LABOUR ROOM**



**BIRTH/DEATH REGISTRATION**



**PATHOLOGY**



## MOBILE DISPENSARY



## CRITICAL CARE AMBULANCE



### **Constraints Observed**

1. There seemed a lack of synchronization among activities such as the general administration , engagement of manpower and procurement of medical equipments.
2. There was Contractual specialist's continuation inconsistent.
3. Procurement of equipments is long and Tedious process, process involves ; Finalization of specifications, two bid tendering , evaluation of technical bid , evaluation of techno commercial bid, Demo of equipments, financial bid analysis , approval procurement time , commissioning /installation /inspection by the consultants.

### **Recommendations**

1. There is a need for engagement of SRs /JRs.
2. There is a need for engagement of Nursing /paramedical /Administrative staff equitable to work load.
3. There is a need to bridge gap for continuity specially of Contractual specialist's.
4. There is a need to strengthen hospital administration by employing a full time Hospital Administrator.
5. For effective administration of the hospital there is a need to engage a senior person of the level of Director/ Medical Supdt .
6. To explore possibilities of outsourcing of procurement of medical equipments.
7. Space constraints ; Need for creation of additional spaces /additional floor.

## **SECTION 2: DISSERTATION**

## **ABSTRACT**

### **STATEMENT OF THE PROBLEM:**

**"A STUDY ON PRESENT PROCESS AND FUNCTIONING OF THE OPD AND TO FORMULATE SUGGESTIONS AND METHODS TO IMPROVE OPD SERVICES"**

### **Title of the Dissertation**

**To study the present process and functioning of the OPD and to formulate suggestions and methods to improve the OPD services at Cantonment Board Hospital, Delhi Cantonment.**

The success of any healthcare setup depends upon the number of patients coming to Outpatient Department (OPD) each day, the efficiency of the health team, the availability of services, and the quality of the treatment offered. The level of healthcare among the Indian population has risen markedly in every aspect, whether in respect of life expectancy, infant mortality rate, healthcare facilities, and more. This can be attributed to the growth of the nation, availability of resources, and technological advancements in field of medicine and dentistry.

Cantonment General Hospital located at Sadar Bazar, Delhi Cantonment provides the basic health cover to the civilian population of Delhi Cantonment Area. The hospital is a 100-bedded unit, providing general medical and primary emergency care services including Laboratory, X-ray and Delivery services. The hospital is managed by the permanent staff consisting of a CMO, four general duty doctors, a dental surgeon and other doctors on contractual basis. It has a full-time dental clinic, part-time visiting specialist of dermatology and ophthalmology. It has limited IPD services. It has in its premises a Health Post of Delhi Government which provides Maternal and Child Health Services including Antenatal Care and Immunization Services. It also has the DOTS Centre of Delhi Government providing treatment of tuberculosis. A AYUSH clinic run by Central Council for Research in Homoeopathy (CCRH) is also functional on daily basis.

After a deliberate monitoring of present process and functioning of the OPD, it was clearly indicated that the OPD of Cantonment Board Hospital at Delhi Cantonment required improvement in planning and organizing of same.

The study aims at a comprehensive study of patient satisfaction, efficiency of treatment given, and analysis of the facilities present by means of a preformed questionnaire.

### **General Objective**

To study the present process and functioning of the OPD and formulate suggestions and methods to improve the OPD services at Cantonment Board Hospital, Delhi Cantonment.

### **Specific Objectives**

1. To study the present process and functioning of the OPD.
2. To identify the areas those require improvement in planning and organizing the same.
3. To determine the quality of care provided.
4. To identify problems and highlight areas where expectations and fulfillment do not meet.

### **Methodology**

**Settings and Design:** A stratified random sampling procedure will be used in this study design with a sample size of 100 patients.

**Materials and Methods:** The study subjects were patients attending the OPD. Four patients were enrolled into the study in a day and every fifth patient entering the Department was selected (5, 10, 15, and 20). Care was taken to ensure that there was no repetition of the subjects. They were given a questionnaire to fill. The patients who were not able to understand the language were verbally communicated and made to

understand the questionnaire and then their answers/response filled after the informed written consent.

Waiting time was the difference between the time a patient handed over the case record file to the OPD and the time the patient was seen.

**Results:** The results are depicted by text, tables, and figures.

**Time Frame -** 24 Feb to 18 May

## **Conclusion**

Patients and staff satisfaction is an important component of the health care industry in this competitive modern era. In the hospital, the Outpatient Department is often called “Shop Window”. Patients’ satisfaction leads to drift in both new and old patients, which hinders the sustainability of any hospital in long run. This study was conducted to know the satisfaction level of patients and also get a feedback about the services provided in the outpatient departments. The patients were randomly selected and a questionnaire was developed to evaluate patient satisfaction about the outpatient department services, logistic arrangement in the outpatient departments, waiting time, facilities, perception about the performance of staff, appointment system, behavior of staff, support service and any other suggestions of patients. Out of 100 patients surveyed, 90-95% of patients were satisfied with the service offered in the hospital. This study also showed that some of the patients waiting time were prolonged and the friendliness of the nursing staff needs to be improved.



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## **CHAPTER 1 : HOSPITAL PROFILE**

## **HOSPITAL PROFILE**

Cantonment General Hospital is a 100 bedded Hospital built in two phases. The hospital building, designed by School of Planning and Architecture comprises of basement, ground, first and second floors having 70,000 sq. ft. plinth area.

As per record, each year approximately 2.5 lakhs outdoor patients and about 700 indoor patients are treated. 24X7 emergency services are available and roughly 35,000 patients are admitted in the emergency department during the year. Major OT facilities was commissioned in the month of August, 2014 and about 100 major surgeries are performed successfully during a year.

All Central and State Government sponsored health schemes/ programmes are being implemented successfully. Specialists in the fields of medicine, gyane&obs, surgery, pediatrics, psychiatrics, orthopedics, ENT, ophthalmology, radiology, dermatology and pathology have been engages. Ayurvedic Clinic, Homeopathic Clinic, DOTs Centre, Immunization Centre and AIDs detection Centre are also being run. Renowned hospitals in Delhi have been empanelled for treatment of employees and their dependents. Priority is being given for disbursement of generic medicines. The Cantonment General Hospital has been registered with Government Medicine Store Department (GMSD) for procurement of bulk medicines on Government approved rates.

The outsourcing of hospital services has become increasingly commonplace as way to control or reduce costs.

## **CHAPTER 2 : INTRODUCTION**

## **Introduction**

The public health delivery in India is in very bad shape. A large part of blame is laid on the low spending on health infrastructure. This is further aggravated by the fact that service orientation is very low in government hospitals. In fact, the process of measuring service quality does not exist in public hospitals. There are several reasons for this. Firstly, there is no pressure to perform, either from customer or superiors. Quite often, patients from lower income groups are the only ones who visit government hospitals. Their expectations are so low that any service as long as it is available is acceptable. Secondly, the administrative staff in government hospitals are not trained in management and do not understand fundamental principles of management in operations, finance, or human resources. The absence of the management knowledge makes it difficult for them to conceive better solutions. Thirdly, government hospitals are yet to introduce the concept of benchmarks. In absence of benchmark and performance management systems, no comparison of services can be done within various wards and departments in a hospital or between various hospitals.

Out Patient Department (OPD) Services are one of the important aspect of Hospital Administration. If you go back to the hospital system you will find the name of OPD services there in primary function. OPD services otherwise called as Ambulatory Care Services. It is a shop window for patients, like window-shopping in a super market where articles are laid down to chose and pick. OPD is the mirror of the hospital, which reflects the functioning of the hospital being the first point of contact between the patient and the hospital staff. Patients visit the OPD for various purposes, like

consultation, day care treatment, investigation, referral, admission and post discharge follow up. Not only for treatment but also for preventing and promotive services like, health check up, Immunisation, Physio-therapy and so on. The Ambulatory Care Services is gaining popularity and is in demand due to “Day Care Services” and patient need not stay at hospital. This is helping both the patient and hospital as patient remains at house near the relatives and the hospital is benefited by less demand on hospital beds there by reducing cost on in patients. Therefore, providing the best OPD Services is one of the primary goal of Hospital Administrator.

### **CHAPTER 3 : Present OPD System of Cantonment General Hospital**

### **Present OPD System of Cantonment General Hospital**

1. There is already a daily foot fall of 500 persons attending various OPDs in the hospital and the trend is that the strength will increase as the quality of services will improve . Most of the patients are from middle class, or the lower strata of the society as the hospital is catering to the civil population staying in the cantonment area.
2. OPD services is the main stay of the hospital and start early in the morning at 0800h , lunch break is at 1300h , hospital continues till 1500h.
3. A huge rush is there at the registration as well as near the OPD area which has most of the consultant rooms. There is less rush at the Dental , Ayurvedic and Homeopathic OPD area as they are in different locations.
4. There is a common waiting area in the gallery, during the OPD time the patients and their attendants are seen standing in the gallery due to the limited seating capacity . There is a requirement to create a bigger waiting area with token no display system to reduce the rush and stream line the OPD system.
5. There are some Sign boards showing the details of facilities in the hospital, fire prevention measures , hand washing rules, actions to be taken during an Earthquake etc but there is still a scope of more sign boards for easy understanding of the patients.
6. Registration for the OPD is done at the registration counter on two windows where a person has to give his demographic data , which is then fed on the computer at the desk . A yellow slip is physically filled and given to the patient

directing him to report to the specific specialist or to a general physician. Once registered the OPD slip is valid till six months. There is a requirement to automate the registration process to reduce the rush as also to ease the data management and billing.

7. Once the patient is seen by the specialist he gives a white chit containing the prescription or an investigation slip if required , this slip can be given at the Pharmacy and medicines can be collected .The prescription is also entered in the patients yellow slip for record.
8. The registration counter does not have any automated system which could ease the billing and registration process and collect the data for future analysis.



## **CHAPTER 4 : RATIONAL OF STUDY**

## **RATIONAL**

Outpatient Department in any hospital is considered to be shop window of the hospital. There are various problems faced by the patients in outpatient department like overcrowding, delay in consultation, lack of proper guidance etc that leads to patient dissatisfaction. Now days, the patients are looking for hassle free and quick services in this fast growing world. This is only possible with optimum utility of the resources through multitasking in a single window system in the OPD for better services.

OPD provides services to those patients who are not required to be admitted to hospital. They are given medicines and are required to visit again as requested or required by the doctor. Staff shortage in the hospital is a major concern for the employees in the hospital. Given the increase in patient traffic, the only feasible option is to look for ways and suggest means by which the performance of the system could be improved. In this case, we focus on OPD, as it is the section where the hospital experiences heavy load.

## **CHAPTER 5 : OBJECTIVE**

## **OBJECTIVE**

### **General Objective**

To study the present process and functioning of the OPD and formulate suggestions and methods to improve the OPD services at Cantonment Board Hospital, Delhi Cantonment.

### **Specific Objectives**

- a) To study the present process and functioning of the OPD.
- b) To identify the areas those require improvement in planning and organizing the same.
- c) To determine the quality of care provided.
- d) To identify problems and highlight areas where expectations and fulfillment do not meet.

## **CHAPTER 6 : REVIEW OF LITERATURE**

## REVIEW OF LITERATURE

Patient satisfaction surveys are useful in gaining an understanding of user's needs and their perception of the service received. In a survey conducted by Department of Public Health, Ireland the level of satisfaction among the OPD attendees were 94%. Doctors and nurses were perceived as friendly by 61% and 72% and rude by 1% and 1% of patients, respectively. The study highlighted the areas for improvement from the patient's perspective [6] .

Patient satisfaction is an important indicator in evaluating the quality of the patient care in the outpatient department. In a study conducted at Magdeburg, Germany only 3.6% of patients were dissatisfied [7].

It revealed that patient's participation in their care has a special place with regard to patient satisfaction. While auditing patients experience and satisfaction with Neuro surgical care at the National Hospital, London, it was found that most aspects of the patients care had 70-80% satisfaction [8].

Poor patient satisfaction can lead to poor adherence to treatment with consequently poor health outcomes. In another study conducted on a sample of dermatology outpatients, out of 1385 randomly selected patients, 722 patients agreed to participate, 424 fulfilled the inclusion criteria and 396 of these patients (93.4%) completed the study. Overall satisfaction was reported by 60% of patients [9].

From these examples it is evident that the satisfaction of patients attending the OPD is to be assessed periodically. From the present study in a tertiary care hospital in India, it is seen that 90-95% of patients are satisfied with the service offered in the hospital. The waiting time for most of the patients is within one hour in various departments, except in some occasions where it is prolonged. 96.5% of the patients were satisfied with the time spent by the doctors in consultations. The assessment of the services provided by nurses, security, receptionist, attendees etc also showed that 90-95% of patients were satisfied with the service. The study also revealed that some of the patients waiting time were prolonged and that the friendliness of the nursing staff needs to be improved.

## **CHAPTER 7 : RESEARCH METHDOLOGY**



## **RESEARCH METHDOLOGY**

**Study Area:** Cantonment Board Hospital, Delhi Cantonment

**Study Population:** 100 OPD patients

**Sampling Methodology:** The study subjects were patients attending the OPD. Four patients were enrolled into the study in a day and every fifth patient entering the Department was selected (5, 10, 15, and 20). Care was taken to ensure that there was no repetition of the subjects. They were given a questionnaire to fill. The patients who were not able to understand the language were verbally communicated and made to understand the questionnaire and then their answers/response filled after the informed written consent.

Waiting time was the difference between the time a patient handed over the case record file to the OPD and the time the patient was seen..

### **Inclusions & Exclusions**

Patients who had waited a minimum of 15mins for their consults were included or at the time of exit from the hospital.

**Research Design:** Cross Sectional and Descriptive Study

**Data Collection Tools & Techniques:**

- a) Questionnaire
- b) Personal Interview
- c) Observation
- d) Desk Review

**Time of Study:** 24 Feb to 18 May 2016

**Data Collection:** 1st Mar to 30th Mar 2016

**Analysis of Data:** Microsoft Office was used for analysis and the information is depicted in tabular and graphical format.

#### **Usefulness of study**

- a) It is helpful in understanding the patient needs and expectations with which they coming to the hospital.
  - b) It is helpful in determining the gap in service delivery
  - c) It is helpful in determining the attitude of the front office staff and providing necessary training.
- Limitation of Study

#### **Limiting Factors**

- a) Participant Bias
- b) Time duration of 1 month
- c) 100 bedded hospital with 55 operational beds

## **CHAPTER 8 : DATA FINDINGS AND DATA ANALYSIS**

## **DATA FINDINGS AND DATA ANALYSIS**

The process of data collection was initiated in two phases.

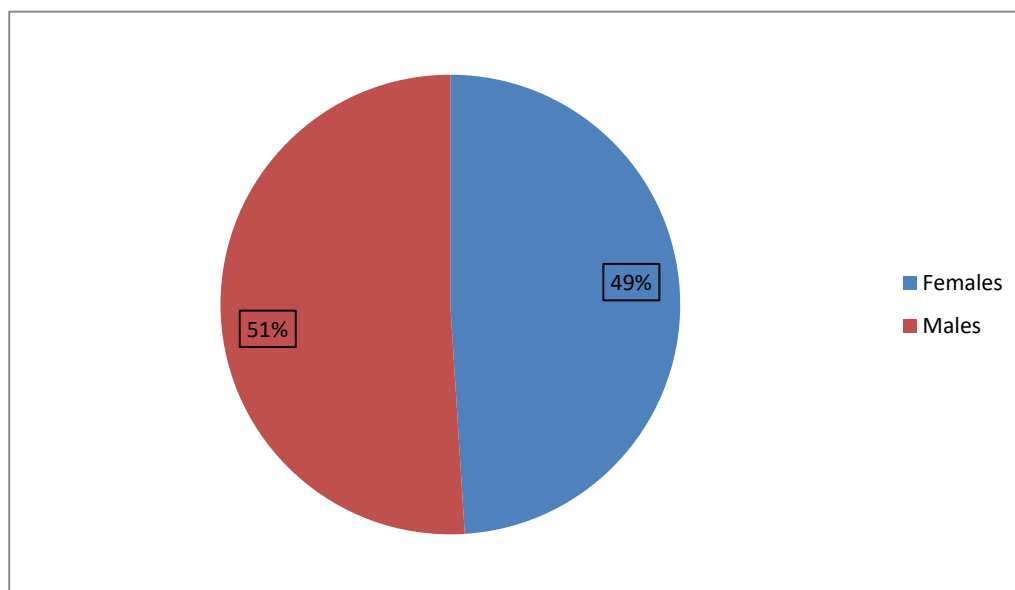
**Phase 1:**                      **Through Questioner**

**Phase 2 :**                      -        **Personal Interview**  
   -        **Observation**  
   -        **Desk Review**

**PHASE 1 :** Data as collected and interpreted through Questioners given to 100 patients. Questionnaire was designed to include questions eliciting awareness of patients about the outpatient department services, logistic arrangements in the outpatient departments, waiting time, facilities, perception about the performance of staff, appointment system, behaviour of the staff, support services and any other suggestions of patients.

There were almost an equal number of males and females [Figure 1].

**Figure 8.1: Distribution of Sex**

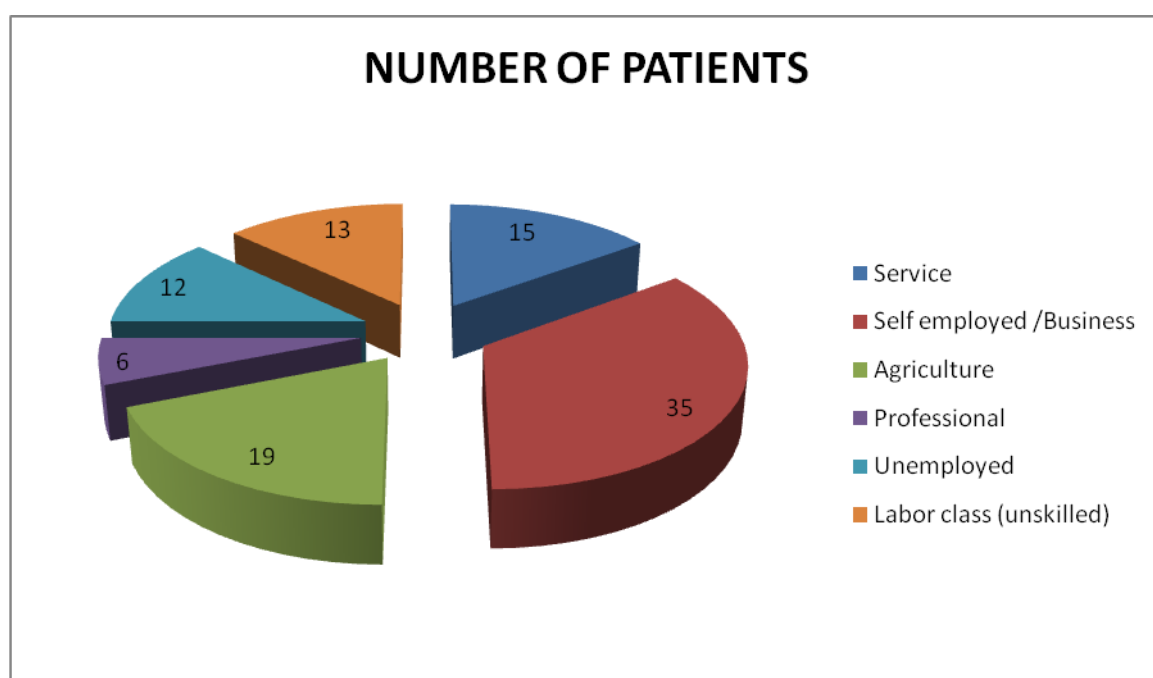


The maximum number of patients were into some or the other business sector, this correlated very well with the number of commercial areas followed by agriculturist and service class patients [Table 8.1 and Figure 8.2].

**Table 8.1: Patient distribution according to occupation**

OCCUPATION	NUMBER OF PATIENTS
Service	15
Self employed / Business	35
Agriculture	19
Professional	6
Unemployed	12
Labor class (unskilled)	13
<b>Total</b>	<b>100</b>

**Figure 8.2: Number of Patients**



**Table 8.2: Level of education**

<b>Level of education</b>	<b>Number of patients</b>
Uneducated	<b>31</b>
Primary school	<b>11</b>
High school	<b>17</b>
Graduate	<b>34</b>
Postgraduate	<b>7</b>
Total	<b>100</b>

In the education sector uneducated and graduate patients were nearly same in number as depicted in Table 8.2. A total of 63% of the patients were those coming first time to the Hospital. Professionals made the least of the patient group and Self employed /business community being the most of it. Most of the patients came to the department by themselves (72%) barring a few who were referred either by private practitioner or other hospitals [Table 8.3].



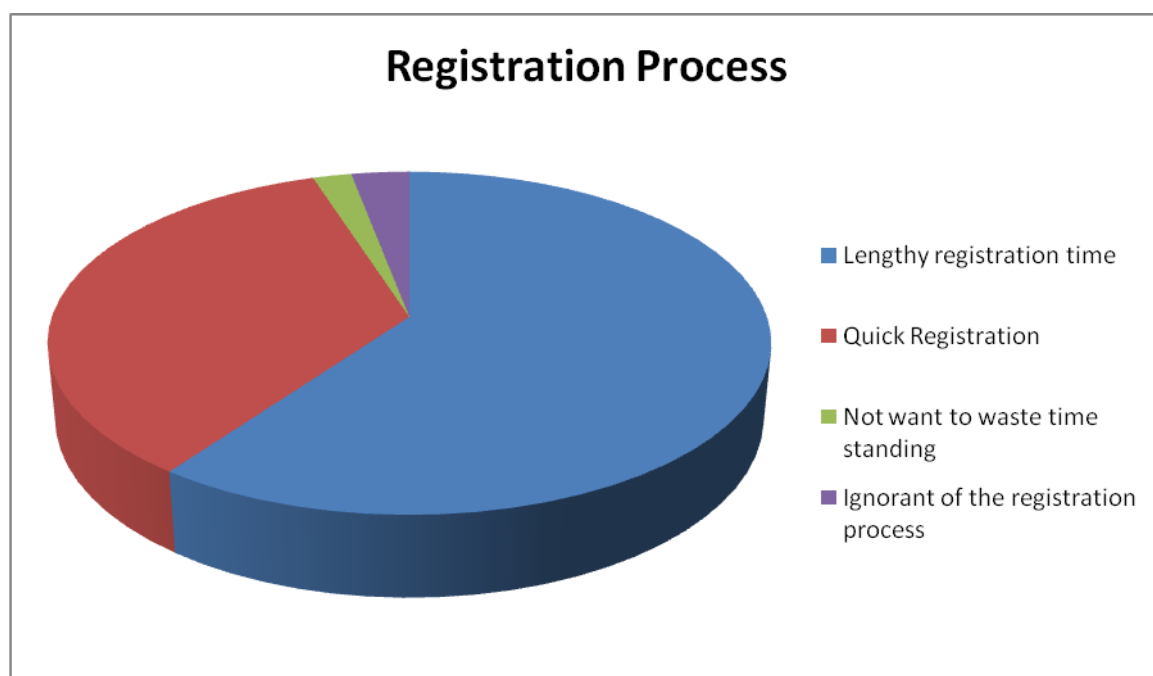
**Table 8.3: Type of referral**

Type of referral	Number of patients
Self	72
Other Hospital	9
Private Practitioner	19
Total	100

### **Patient satisfaction**

A total of 60% of the patients complained about the lengthy registration time period while a few (2%) did not want to waste time standing in the queue and some were ignorant of the registration process (3%) as depicted in Figure 8.3.

**Figure 8.3 Registration Process**



Lack of adequate drinking water facilities and toilets were the major issues with the patients while clean environment and surroundings were appreciated by most of the patients. Mixed feelings could be elicited in the seating arrangement in the waiting area - adequate seating but not so comfortable [Table8. 4].

**Table 8.4: Patient feedback**

<b>Feedback</b>	<b>Agree</b>	<b>Disagree</b>	<b>Uncertain</b>
Adequate seating	71	25	4
Seating is comfortable	39	59	2
Clean environment	87	13	0
Adequate facilities for toilet	17	75	8
Adequate facilities for drinking water	37	51	12

## Efficiency and quality of treatment

The treatment was executed on the same day for majority of the patients (74%). The patients were attended promptly and if there was a delay they were politely apprised of the delay. A total of 89% of the patients were told about the delay if there was any.

Patients were happy with the treatment and doctor part and well appreciated the clinicians knowledge and approach toward the treatment but wanted the doctor to be more patient in listening to their problems and increase in the consultation time [Table 8.5].

**Table 8.5: Patients remarks**

<b>Patients Remarks</b>	<b>Agree</b>	<b>Disagree</b>	<b>Uncertain</b>
Satisfied by time spent on consultation	68	23	9
Doctors were well behaved	89	10	1
Doctor was listening to my problems patiently	73	25	2
Satisfied with the treatment done	82	7	11
Doctor explained me fully about the illness and treatment	92	8	0

Following were the changes the patients wanted in the Cantonment Board Hospital, Delhi Cantonment:

Registration process – 35%

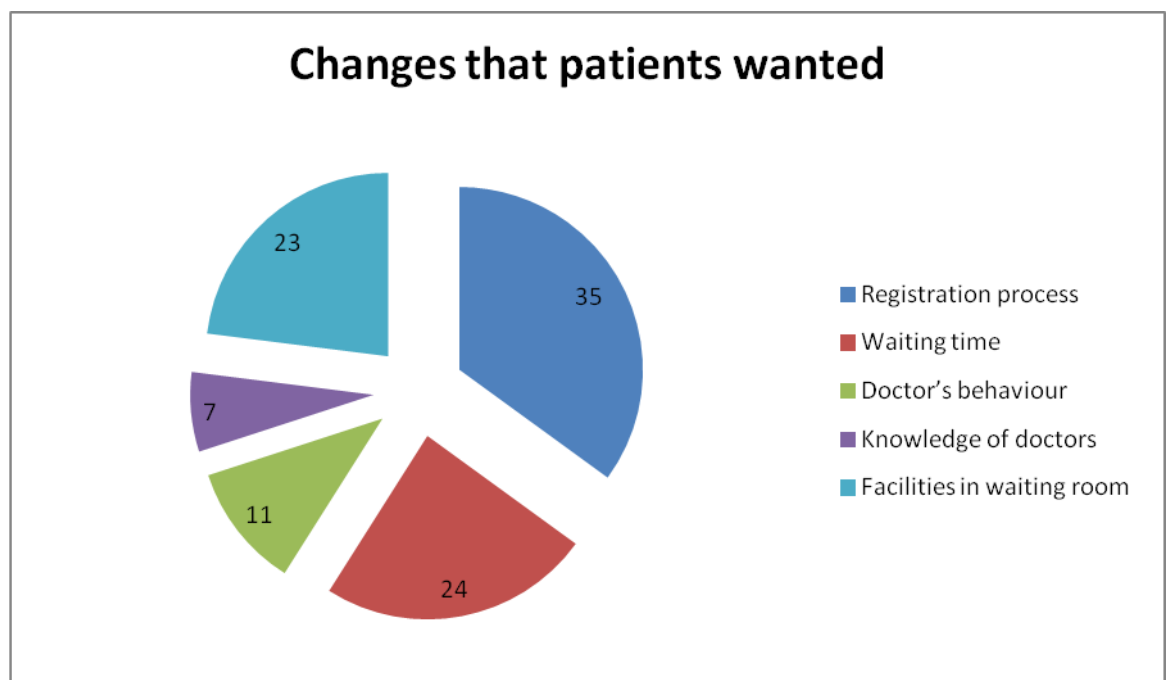
Waiting time – 24%

Doctor's behaviour – 11%

Knowledge of doctors – 7%

Facilities in waiting room – 23%

**Figure 8.4 Changes that Patients want**



## **PHASE 2 :**

Data collected and interpreted by :-

- a) Personal Interview
- b) Observation
- c) Desk Review

### **Patient's Awareness**

With regard to the patient's awareness about services in the hospital, 32% of the patients said that they knew about the services very well. 38% responded that they are aware about details of individual treatment and 30% said that they don't know much and would like to know more.

### **Patient Guidance**

About the question on guidance received from the hospital, 60% said that the staff of the hospital always guided them. The guidance was provided to 59% of the patients by the Front office / Reception counter and 40% of patients by the security staff.

### **Medical Records**

With regard to the availability of medical records in the outpatient department, majority of the patients were happy.

### **Comfort Available**

When asked about the comfort available in the outpatient department, 75% of the patients had a good opinion.

### **Cleanliness**

With regard to the cleanliness in the hospital, 50% of patients were satisfied whereas 50% said that the cleanliness can surely be improved.

### **Staggered Appointment**

With regard to the staggered appointment system followed at Cantonment Board Hospital, 94% of the patient was satisfied with the system and the same is the case with the signage boards available in the Out Patient Department.

### **Feedback on Doctors and Nursing staff**

With regard to the time spent by the doctors during consultation 96.5% of the patients were satisfied.

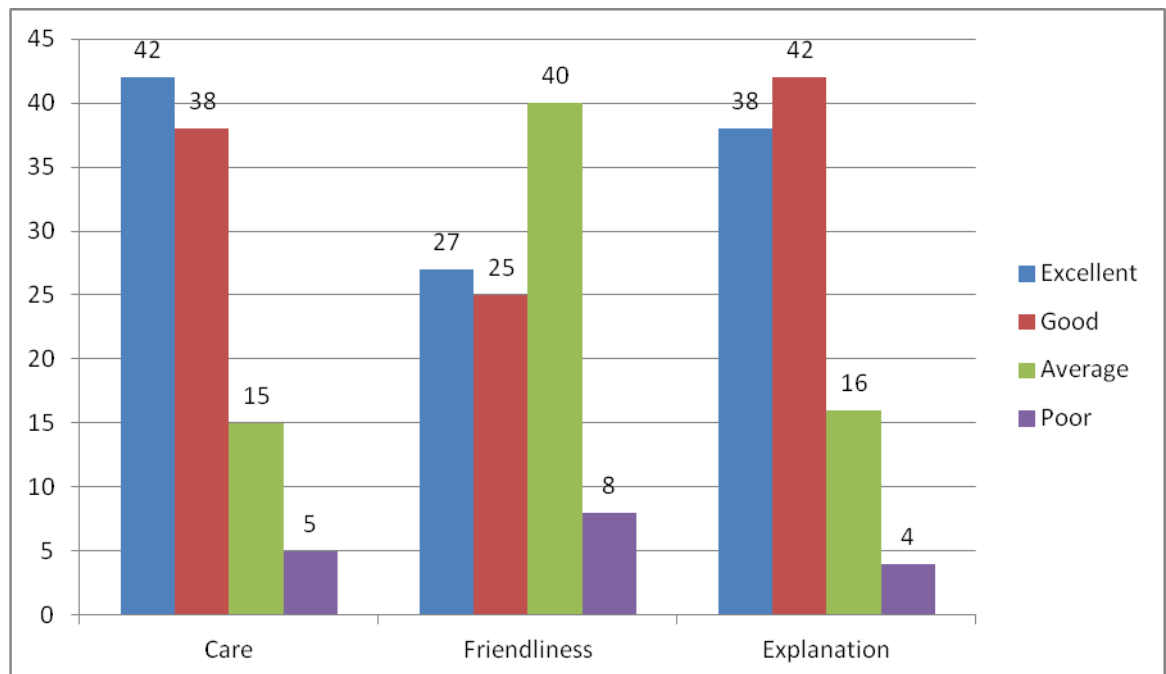
With regard to the Doctors behaviour 56% said that Doctors were well behaved, compassionate and patient, while 35% felt that they were well behaved but would have been better if they were less patient.

With regard to the privacy in consultation, 95% of the patients were satisfied.

To a question “Were you benefited” when compared to the time spent for checkup, 80% responded that they were highly benefited while 20% said that they were benefited but have to wait for long hours to meet the doctor.

About the services provided by the nursing staff, the patient responded as per Figure 8.5.

**Figure 8.5 : Patients response to Nurses and other Staff**



It is seen that majority of the patients are satisfied with the care and explanation about the disease and treatment given to them by the nursing staff. However the friendliness component of the nursing service was rated to be only average by 40% of the patients.

## **CHAPTER 9 : DISCUSSION**



## **DISCUSSION**

Practice-based research networks (PBRNs) were introduced in the United States in 1998. This research tool had been utilized extensively to investigate medical practice.[10]

Each source of information provides a unique view of the practice with its own particular bias. One study has used direct observation to look at the frequency (but not time) of services in a public health practice in Sweden,[11] but direct observation has not yet been utilized to examine private practice. We designed this multi method study of medical practices, emphasizing direct observation, to simultaneously illuminate several aspects of medical practice and quantify both procedures and the behavioral content of patients visits.

Patients often spend long waiting times in order to see their doctors, and as per the old saying “time wasted is money wasted,” hence bad for economy. A reduction in waiting time thus could improve efficiency and quality of care provided. A study by Mok et al. in Hong Kong stressed on cutting short the waiting time in the specialist clinic both for the hospital functioning and comfort and for the well-being of the frail elderly patients. [12]

A study by Jennings showed that the average waiting time for patients may be reduced by giving the doctor responsibility for arranging his own appointments.[13] The other

way of reducing the waiting time is identifying the regular cases and emergency ones and forming a triage system that can be managed by the nursing staff. This effectiveness of triage in managing the patients has been very effective as shown by studies by Fenton,[14] Banerjee,[15] and Jones.[16]

As the recalled patients require comparatively less time than the new patients, they can be given a particular time slot so that the new OPD patients and old patients do not turn up together leading to rush in the OPD.

The effect of communication and interpersonal behaviours between patients and providers has been shown to affect patient satisfaction, perceptions of care, and even health outcomes in medicine and dentistry. My study is based upon the verbal interactions that occur during the hospital visit and that these behaviours can be reliably recognized and quantified.

Most of the patients were treated the same day and a specialist opinion was given if the treatment could not be executed on the same day which is important if we want the self-referrals to continue and increase in OPD.

The patients were overall satisfied with the quality of the treatment provided but had some reservations regarding the facilities provided in the waiting area, the registration process, and waiting time. They had given the following suggestions:

1. A welcoming approach to the OPD building, clearly sign posted.

2. A comfortable ambience inside the OPD with separate waiting spaces for different category of patients provided with newspaper/magazine stands, drinking water facilities, and sanitary blocks.
3. Recreational facilities in the form of soothing music and wall mounted TV sets.
4. Digital display system for the patients.

For better patient satisfaction the they suggested following to be implemented:

1. Clear and visible sign boards for patient guidance.
2. Provision for a well-ventilated waiting area with comfortable chairs and educational materials.

For an efficient system of working and maintaining the standard of care, following was suggested by the patients:

1. Segregation of the follow-up patients and new patients. The days of patient follow-up and timing can be fixed so that the new patients do not end up waiting.
2. Separate OPD space and manpower for new and follow-up patients. The same thing can be done for patients requiring a specialist opinion.
3. Separate registration counters for new and old patients.
4. An online appointment system and file number just like the prior booking system.

## **CHAPTER 10 : RECOMMENDATIONS**

## **RECOMMENDATIONS**

Due diligence on the review of Literature and post analysis of data as collected from Cantonment Board Hospital on OUT PATIENT DEPARTMENT (OPD) over a period of two months and factoring suggestions as given by patients I have following recommendations.

OPDs act as a window to hospital services and a patient's impression of the hospital begins at the OPD. This impression often influences the patient's sensitivity to the hospital and therefore it is essential to ensure that OPD services provide an excellent experience for customers. It is also well-established that 8-10 per cent of OPD patients need hospitalisation. When well organised and professionally run, not only can such OPDs help avoid confusion, frustration and overspending by fearful patients but can also regulate the flow of inpatients to the hospitals. Having observed this, hospitals today are making changes on various fronts to streamline this area.

### **Managing Time**

It is crucial to manage time well and optimise its use for both consultants as well as patients. The situation is challenging with more visiting consultants serving hospitals. Since today many doctors are fee-for-service consultants and operate in more than one hospital it is not easy for the patient to find out whether the particular consultant he is looking for is indeed available in the OPD, especially surgeons who are often in the theatre. The patient might have to wait a while before the consultant is free.

### Some Tips:

1. At the entrance of the OPD displaying the map of hospital is essential, with the proper marking of departments.
2. The details of doctors with their consultation timings should be properly displayed in OPD.
3. Each site should be clearly signposted from the main entrance and on all relevant corridors and parts of the building.
4. Signages should be in English and in the local language.
5. Related diagnostic departments must be closely located to OPD, preferably on the same floor.

### **Better Scheduling**

As most patients, whether new or old, prefer to come to the hospital in the morning, there is always a crowding of outpatients. Moreover, the doctors would like to see the patients in the mornings. Most patients also come without appointments.

Consequently, an important area to improve upon is the appointment and scheduling system. The heavy rush of patients in peak hours leads to long queues to meet the concerned doctors. Keeping an appointment is becoming difficult for the doctors as well as patients due to inaccurate estimation of time. At times, doctors do not use time slots appointed to them effectively, which affects the productivity of the hospital.

An effective centralised appointment system for doctors can help in retaining patients. It is integral to provide a single point of contact for making and cancelling appointments.

The patient should not after coming to the hospital discover that the doctor hasn't come or is not available on that particular day.

The appointment should be scheduled with adequate time for each patient to be examined properly and less waiting time for those following. A facility should be provided for either online or telephonic booking of consultations. Good dispersal of information regarding availability, timings and charges of doctors is therefore necessary and can be done via the hospital website to inform the patient in advance. Alternate methods of appointments like email appointments, online appointments and SMS should be utilised thoroughly.

There should be a staggered system of appointments. This will ensure that patients come to see the doctors evenly and there will be orderliness. Thus there will be less crowding of new and old patients

### **Programme the Flow**

Developing a service blueprint and making it more relevant by keeping the target customer base in mind can help to streamline the functioning of OPD

Any issue related to planning and designing of the facility takes time and resources to streamline. So one should be careful before taking any decision and ensure that it is acceptable. A flowchart can be applied either at the time of planning the hospital or later, to pick the service counters and service points. It is necessary to study the service delivery system of OPD step-by-step. The hospital needs to study carefully the value addition of each step and how it is making a patient's journey in the hospital smoother. We also must remember that more interactive phases with the patients in a hospital may

make patients unhappy. So it is advisable to bring down the unnecessary interaction with the patients during the care process.

### **Informed Technology**

Incorporating the latest IT processes forms an essential part of streamlining the services of a hospital. The Hospital Management System (HMS) helps in storing patient data efficiently and improves the sensitivity of surveillance information. A computerised appointment system to minimise the waiting time for patients is very useful for increasing customer satisfaction levels as well. Token/ticketing of patient turn to avoid frequent enquiry, Electronic Display System (EDS) to display turn, smart cards for quick patient records retrieval, 'Express registration' interactive kiosks for patients to feed in their personal details, are the other hot new technology trends which have captured the industry's imagination. Interactive kiosks are actually great because the hospital will save on the reception or inquiry counter staff as many frequently asked questions will be answered by the machine.

### **Make it an Experience**

Patient friendly environment and other tangible facilities also play a major role in improvement of OPD services. Providing magazines, newspapers and installing a television in the waiting room and supplying coffee, tea or water would delight the patients. These may not cost much, but the patients will put up with the waiting time. The patient should be engaged in something constructive like an interesting health talk or Audio Visual Aids.



## CONCLUSION

Cantonment Board General Hospital , Delhi Cantonment (CGH) was raised with aim to look after the medical requirements and public health of civilian population living in and around the cantonments. It comes under the governance of Local Cantonment Board. The hospital is a **100-bedded unit** (under extension) at present, providing general medical and primary emergency care services. All Central and State Government sponsored health schemes / programmes are being implemented successfully. Specialists in the fields of medicine, gyane&obs, surgery, pediatrics, psychiatrics, orthopedics, ENT, ophthalmology, radiology, dermatology and pathology have been engages. Ayurvedic Clinic, Homeopathic Clinic, DOTs Centre, Immunization Centre and AIDs detection Centre are also being run. Renowned hospitals in Delhi have been empanelled for treatment of employees and their dependents.

The hospital has a daily foot fall of 500 persons attending various OPDs and the trend is that the strength will increase as the quality of services is improving . Most of the patients are from middle class or the lower strata of the society as the hospital is catering to the civil population staying in the cantonment area.

It was felt that there is a need to know the satisfaction level of patients and also get a feedback about the services provided in the outpatient departments. This in turn would also suggest about infrastructure modification.

Hence this study was undertaken with objectives to study the awareness of patients about the outpatient department services, to evaluate the performance of the services in the patient's perspective, and to identify the problems of the patients and suggest measures for improvement.

The study was conducted by taking feedbacks in a form of Questioners given to hundred patients. Questionnaire was designed to include questions seeking awareness of patients about the outpatient department services and their satisfaction level with regard to service . More so data on relevant aspects were also collected through Personal Interview and direct observations.

The analysis of data collected clearly indicated that patients were overall satisfied with the quality of the treatment provided but had some reservations regarding the facilities provided in the waiting area, the registration process, and waiting time. The study recommends that the process of OPD may further be streamlined by Managing time, Scheduling effectively, Planning of the facility , Using technology and by making it an experience for Patients.

The study also gives the insight of the patients about the treatment executed and the associated parameters. After all it is the patient for whom we study, learn, gain experience, and try to give our best for their benefit, so why not just ask.

Patients attending each hospital are responsible for spreading the good image of the hospital and therefore satisfaction of patients attending the hospital is equally important for hospital management. Various studies about Out Patient Services have elicited problems like overcrowding, delay in consultation, proper behaviour of staff etc. In this study, it is found that majority of the patients are satisfied with the services provided. They were satisfied with the guidance, logistic arrangements, support services, nursing care, Doctors consultation etc. wherever there is delay in consultation, it is to be explored to remove the lacunae. It is worthwhile to note that there is scope for improvement of the Out Patient Department Services. Therefore it can be concluded that the OPD services at Cantonment Board Hospital form an important component of Hospital services and feedback of patients are vital in quality improvement.

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## **APPENDICES**

**SAMPLE OF QUESTIONNAIRE**

Please tick the appropriate option and fill in the required fields where necessary

Name –

Age-

Sex –

Address –

Occupation –

☐ Service

☐ Business

☐ Agriculture

☐ Professional

☐ Unemployed

☐ Labour

Education –

☐ Uneducated

☐ Primary school

☐ High school

☐ Graduate

☐ Post graduate

Previous visit to hospital - ☐ Yes

☐ No



What is the type of your referral

- ☐ Self
- ☐ Other hospital
- ☐ Private practitioner
- ☐ others

Registration process –

- ☐ Quick (< 5 minutes)
- ☐ Time consuming (> 5 minutes)
- ☐ Others

Adequate seating

- ☐ Agree
- ☐ Disagree
- ☐ Uncertain

Seating is comfortable

- ☐ Agree
- ☐ Disagree
- ☐ Uncertain

Clean environment

- ☐ Agree
- ☐ Disagree
- ☐ Uncertain

Adequate facilities for toilet

- ☐ Agree
- ☐ Disagree
- ☐ Uncertain

Adequate facilities for drinking water

- ☐ Agree
- ☐ Disagree
- ☐ Uncertain

Average waiting time elapsed before you were attended in OPD -

- ☐ Less than 10 min
- ☐ 10 – 20 min
- ☐ More than 20 min

If there was delay in the initial examination were you appraised by the doctor –

☐ Yes

☐ No

Was the treatment done or procedure executed the same day –

☐ Yes

☐ No

If no give the details of the delay \_\_\_\_\_

\_\_\_\_\_

Quality of treatment executed -

☐ Very Good

☐ Good

☐ Average

☐ Poor

## Doctors

Satisfied by time spent on consultation

- ☐ Agree
- ☐ Disagree
- ☐ Uncertain

Doctors were well behaved

- ☐ Agree
- ☐ Disagree
- ☐ Uncertain

Doctor was listening to my problems patiently

- ☐ Agree
- ☐ Disagree
- ☐ Uncertain

Satisfied with the treatment done

- ☐ Agree
- ☐ Disagree
- ☐ Uncertain

Was the doctor confident

- ☐ Yes
- ☐ No

Doctor explained me fully about the illness and treatment

☐ Agree

☐ Disagree

☐ Uncertain

Would you come to OPD again

☐ Yes

☐ No

Would you get your dependents to OPD

☐ Yes

☐ No

What would you like to change? Please tick appropriate

- ☐ Registration process
- ☐ Waiting time
- ☐ Doctor's behavior
- ☐ Knowledge of doctors
- ☐ Facilities in waiting room

**END OF DOCUMENT.**